

### REMARKS

In the office action, claims 1, 4 and 7 - 10 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 5,245,654 (to Wilkison et al.), and claims 2 - 3 and 5 - 6 were rejected under 35 U.S.C. § 103(a) over Wilkison et al. in view of U.S. Patent No. 5,838,722 (to Consi). Responsive to the office action, claims 1, 2, 4, 5 and 7 - 10 are amended and new dependent claims 11 - 20 are added.

The present invention generally involves the use of a single matching impedance in a line interface in which the matching impedance is positioned between a pair of primary transformer windings. In accordance with an embodiment, the line interface circuit may include matching impedance 24 that is positioned in series between two primary transformer windings 20 that couple with a transmission line via a secondary transformer winding 26 as shown in Figure 1. Two sets of negative feedback paths (one including resistors 18 and the second including resistors 20) are also provided by the circuit of Figure 1.

The Wilkison et al. reference appears to disclose an isolation device that avoids the use of coupling transformers and instead uses opto-isolators. The impedance that is reflected via a transformer is employed in the present invention and each of applicant's claims require a pair of primary transformer windings. The Wilkison et al. reference teaches away from the use of transformers, and therefore cannot fairly be combined with Consi to together suggest the subject matter of applicant's invention.

The Consi reference appears to disclose a monolithic transceiver including feedback control that employs a pair of primary transformer winding (25 and 26) as shown in Figure 1 thereof. The Consi reference, however, does not disclose the use of a matching impedance that is positioned between two primary transformer windings as claimed by

applicants.

As claimed in claim 1, applicant's invention includes first and second primary transformer winding such that the matching impedance is coupled to a first output of the transmission amplifier via the first primary transformer winding at one end of the matching impedance and is coupled to a second output of the transmission amplifier via the second primary transformer winding at a second end of the matching impedance. None of the cited prior art, in any combination, discloses, teaches or suggests such a system.

As claimed in claim 4, applicant's invention includes a single impedance matching network that is coupled at either end thereof to the differential output of the transmission amplifier via two primary transformer windings. None of the cited prior art, in any combination, discloses, teaches or suggests such a system.

As claimed in claim 7, applicant's invention includes a single impedance matching network that is interposed in series between a first primary transformer winding and a second primary transformer winding. None of the cited prior art, in any combination, discloses, teaches or suggests such a system.

As claimed in claim 8, applicant's invention includes a matching impedance that is coupled to a first negative feedback path of the transmission amplifier and a pair of primary transformer windings, each of which is coupled to the matching impedance and to an output of the transmission amplifier. None of the cited prior art, in any combination, discloses, teaches or suggests such a system.

Dependant claims 2, 3 and 11 - 13 depend from and further limit the subject matter of claim 1; dependant claims 5, 6 and 14 - 16 depend from and further limit the subject matter of claim 4; dependant claims 17 - 19 depend from and further limit the subject matter

of claim 7; and dependant claims 9, 10 and 20 depend from and further limit the subject matter of claim 8. Each of the dependent claims, therefore, is also in condition for allowance.

Applicant submits, therefore, that each of claims 1 - 20 is in condition for allowance.

Favorable action consistent with the above is respectfully requested.

Respectfully submitted,



---

William E. Hilton  
Registration No. 35,192  
Samuels, Gauthier & Stevens, LLP  
225 Franklin Street, Suite 3300  
Boston, Massachusetts 02110  
Telephone: (617) 426-9180  
Extension: 111